

REMARKS/ARGUMENTS

This paper is responsive to the Non-Final Office Action dated March 17, 2004, having a shortened statutory period set to expire on June 17, 2004, extended to July 17, 2004, wherein:

Claims 1-8, 10-35, and 37-69 were previously pending in the application;

Claims 10-35 and 37-45 were allowed; and

Claims 1-8 and 46-69 were rejected.

No claims have been amended, added, or canceled by the current amendment. Accordingly, claims 1-8, 10-35, and 37-69 remain currently pending in the present application.

Formal Matters

Applicant wishes to express appreciation for the Examiner's indication of allowability as to Applicant's claims 10-35 and 37-45.

Examiner's Response to Arguments

In the present Office Action, the Examiner has responded to the arguments of Applicant's Preliminary Amendment filed January 9, 2004. Applicant appreciates the Examiner's consideration and respectfully traverses the Examiner's response as follows.

Lowest Restrictive Cost

In paragraph 13 of the present Office Action, the Examiner disagrees with Applicant's prior statement that U.S. Patent No. 6,370,119, issued to Basso et al. (hereinafter, "**Basso**") teaches away from the generation and access of at least one path cost data set in such a manner that a "minimum-cost path" can be determined as claimed. More specifically, the Examiner states in the present Office Action that,

In response to Applicant's argument that Basso et al. teaches away from finding a "minimum-cost path," the Examiner respectfully disagrees. Applicant contends that "widest" as defined in Basso et al. equates with "highest bandwidth" and cited col. 2, lines 43-50 as evidence. This argument, however, is not valid because Applicant has misunderstood the meaning of widest path: "...the widest path, that is, the path that has the lowest symmetric restrictive cost..." Thus, Basso et al. explicitly defines the

meaning of “widest path” as being the path that has the lowest restrictive costs, where restrictive cost means available bandwidth. See col. 2, lines 27-28 for a definition of restrictive cost. Contrary to Applicant’s interpretation of “widest path” meaning the path with the “highest bandwidth,” the term “widest path” actually means “lowest bandwidth.” (emphasis supplied)

Applicant respectfully disagrees.

As an initial matter, Applicant respectfully submits that the Examiner’s proposed interpretation of the term “widest path” as meaning “lowest bandwidth” is repugnant to the ordinary or well-known meaning of these terms (see MPEP 608.01(o)) as well as the teaching of *Basso* and therefore improper. Applicant further respectfully submits that while no single factor or characteristic may be determinative of quality of service/cost, higher bandwidth is typically associated with higher quality of service and cost. *Basso* then, by teaching the computation of only the widest shortest path, teaches the determination of a maximum available bandwidth path and therefore an increased or maximum available cost/quality of service path. *Basso* therefore cannot possibly be construed as teaching “generating” and “accessing” at least one path cost data set in such a manner that a minimum-hop path and a minimum-cost path can be determined as claimed. (Applicant’s claim 1, as originally submitted)

Basso teaches that overall restrictive cost is calculated “as the maximum of the symmetric restrictive costs associated to the links forming the path” (*Basso*, Column 6, Lines 64-66, emphasis supplied). *Basso* further teaches that the symmetric restrictive cost of a link is defined as, “the maximum value between the forward restrictive cost (FRC) and the reverse restrictive cost (RRC) associated to that link” (*Basso*, Column 6, Line 67-Column 7, Line 3, emphasis supplied) and that,

In a preferred embodiment of the invention, the forward and reverse restrictive costs are respectively inversely proportional to the forward and reverse bandwidths requested by the incoming connection. (*Basso*, Column 5, Lines 42-45, emphasis supplied)

The “lowest restrictive cost” taught by *Basso* is therefore the lowest or minimum of the maximum symmetric restrictive costs of the links of a path, which in turn are the maximum of the forward and reverse restrictive costs of the links of the path. (see *Basso*, Column 11, Lines 3-7) Because the forward restrictive cost (FRC) and reverse restrictive cost (RRC) are inversely proportional to bandwidth, the maximum of the FRC and RRC

corresponds to the minimum bandwidth provided in either direction by a link. Similarly, the maximum symmetric restrictive cost of a path, also inversely proportion to bandwidth by its relation to the FRC and RRC, corresponds to the minimum bandwidth of all links making up a path. *Basso* therefore teaches that the lowest or minimum restrictive cost corresponds to the highest or maximum available bandwidth. By contrast, Applicant's claims recite the generation and accessing of a path cost data set in such a manner that "a minimum-cost path" (and therefore a minimum bandwidth path) can be determined.

Motivation to Combine

In paragraph 15 of the present Office Action, the Examiner has attempted to cure the infirmity of the Final Office Action dated October 13, 2003 relating to its failure to provide a sufficient suggestion or motivation to combine the teachings of *Basso* with that of U.S. Patent No. 5,805,593, issued to Busche (hereinafter, "*Busche*") indicating that, "Instead of just contending that the arrangement provides an alternate way of organizing the information, the Examiner now contends that the table arrangement provided by the combination of Busche and Basso et al. provides a more efficient way of organizing the path data." Applicant respectfully disagrees and submits that the present Office Action fails to provide an indication of how the combination of *Busche* and *Basso* provides a more efficient way of organizing the path data or why one of ordinary skill in the relevant art would have been motivated to combine the teachings of *Busche* and *Basso* at the time of Applicant's invention. Rather the Examiner has merely provided benefits or features of Applicant's claims in conjunction with hindsight as justification for the combination of the teachings of *Basso* and *Busche*.

In paragraphs 16 and 17 of the present Office Action, the Examiner disagrees with Applicant's prior statements that *Busche* fails to teach "generating" and/or "accessing" at least one path cost data set and/or a path cost as claimed stating,

...the Examiner relies on the teachings from Basso et al.. As described in the 102 rejection, Basso et al. discloses determining if a proposed path has a lower restrictive cost and lower additive cost than the path already stored in memory. See at least col. 9, lines 11-27 for the process of generating, accessing, and storing path information.

...As described in the rejection, each entry from Basso et al. contains both restrictive and additive cost information. Restrictive cost corresponds to the "cost" as described in the claims of the application.

Applicant believes that the Examiner has misinterpreted Applicant's arguments and respectfully disagrees. In the Preliminary Amendment filed January 9, 2004, Applicant indicated not merely that **Busche** failed to teach "generating" and/or "accessing" at least one path cost data set as claimed. Rather, Applicant stated that **Busche** was not cited by the Examiner as teaching "generating" and/or "accessing" as claimed. Applicant also stated that **Basso** failed to teach such "generating" and/or "accessing". Applicant concluded (and maintains) that no combination of **Basso** and **Busche** could therefore be construed as teaching, showing, or suggesting the described claim elements. Applicant maintains that, as it has been shown herein that **Basso** fails to teach the determination of a minimum-cost path, neither **Basso** nor **Busche**, alone or in combination can be construed as teaching, showing, or suggesting, "generating at least one path cost data set...and accessing said at least one path cost data set wherein said generating and said accessing are performed in such a manner that a minimum-hop path and a minimum-cost path can be determined from said at least one path cost data set" as claimed.

Rejection of Claims under 35 U.S.C. §102

In the present Office Action, claims 1-3, 46-38 and 54-57 stand rejected under 35 U.S.C. §102(e) as being anticipated by **Basso**. While not conceding that any of the Examiner's cited references qualify as prior art, but instead to expedite prosecution, Applicant has elected to traverse the claim rejections as follows. The following arguments are made without prejudice to Applicant's right to establish, for example in a continuing application, that one or more cited reference(s) do not qualify as prior art with respect to an invention embodiment currently or subsequently claimed.

For those reasons stated previously and herein, Applicant respectfully submits that the Examiner's cited reference, **Basso**, fails to teach all elements of Applicant's claim 1 and further teaches away from claimed embodiments of Applicant's invention. Accordingly, Applicant respectfully submits that claim 1 is allowable over **Basso**. Applicant's claims 46 and 54 each include one or more elements or limitations substantially similar to those described with respect to claim 1. Accordingly, Applicant respectfully submits that independent claims 1, 46, and 54 are similarly allowable over **Basso**. Claims 2-8, 47-53, and 55-61 depend directly or indirectly from Applicant's claims 1, 46, and 54, respectively,

and are therefore allowable for at least those reasons stated for the allowability of those claims. Claims 10-35 and 37-45 are allowable as per the Examiner's indication of allowable subject matter.

Rejection of Claims under 35 U.S.C. §103

In the present Office Action, claims 4-8, 49-53 and 57-69 stand rejected under 35 U.S.C. §103(a) as being unpatentable over **Basso** in view of **Busche**. While not conceding that any of the Examiner's cited references qualify as prior art, but instead to expedite prosecution, Applicant has elected to traverse the claim rejections as follows. The following arguments are made without prejudice to Applicant's right to establish, for example in a continuing application, that one or more cited reference(s) do not qualify as prior art with respect to an invention embodiment currently or subsequently claimed.

For those reasons stated previously and herein, Applicant respectfully submits that neither of the Examiner's cited reference, **Basso** or **Busche**, teach all elements of Applicant's claim 1 and further that **Basso** teaches away from claimed embodiments of Applicant's invention. Accordingly, Applicant respectfully submits that claim 1 is allowable over **Basso** and **Busche** independently or in combination. Applicant's claims 46 and 54 each include one or more elements or limitations substantially similar to those described with respect to claim 1 and are similarly allowable. Claims 4-8, 49-53 and 57-69 each depend directly or indirectly from at least one of Applicant's claims 1, 46, and 54 and are therefore allowable for at least those reasons stated for the allowability of those claims.

Sorting by Hop Count

Applicant further submits that, even if the teachings of **Basso** and **Busche** were combined, it still would not have been obvious to a person of ordinary skill in the art at the time of the invention, "to traverse the rows to find minimum-hop path information" as maintained by the Examiner in paragraph 8 of the present Office Action. In the described paragraph, the Examiner states with respect to Applicant's claims 5, 50, 58, and 66 that one would have been motivated to combine the teachings of **Basso** and **Busche** "because if the columns were not sorted in increasing number of hops, then one would want to traverse the entire row before making the determination as to which entry has the minimum number of hops." (emphasis supplied) The Examiner thus appears to imply that the combination of

Basso and **Busche** would produce an unsorted routing table (which one of ordinary skill in the art would then have to cause to be sorted by increasing number of hops).

The Examiner further states in the present Office Action with respect to Applicant's claims 4, 49, 57, 62, and 65, however, that,

It would have been obvious to a person of ordinary skill in the art at the time of the invention to interchange the column and rows in Busche so that the columns represented hop count and to use such a table setup in organizing the entries shown Fig. 4 of Basso et al. One would have been motivated to do this because organizing by hop count, as opposed to source node/destination node, would allow the system to find the links with the shortest hop count that exists between the present node and another node by simply looking at the first few columns and not having to traverse the whole table. (paragraph 7 of the present Office Action, emphasis supplied)

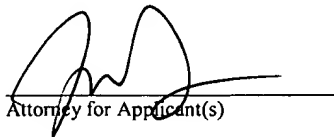
The Examiner thus appears to state that the combined teachings of Basso and Busche would necessarily result in a routing table sorted or organized by hop count. Applicant respectfully submits that this directly contradicts the Examiner's statement with respect to claims 5, 50, 58, and 66. If one of ordinary skill in the relevant art would have been motivated to combine the teachings of **Basso** and **Busche** in this manner, which Applicant contends they would not have been, the resultant combination could not be interpreted as teaching, showing, or suggesting a routing table having columns not sorted by hop number. Consequently, the Examiner's statement that, "if the columns were not sorted in increasing number of hops, then one would want to traverse the entire row before making the determination as to which entry has the minimum number of hops" and rejection of Applicant's claims 5, 50, 58, and 66 is overcome.

Accordingly, for at least those reasons stated previously and herein Applicant respectfully submits that neither **Basso** nor **Busche** teach all elements of Applicant's claims independently or in combination, and that **Basso** teaches away from elements of Applicant's claims. Accordingly, Applicant respectfully submits that claims 4-8, 49-53, and 57-69 are allowable over **Basso** alone or in combination with **Busche**.

CONCLUSION

The application is believed to be in condition for allowance, and a notice to that effect is solicited. Nonetheless, should any issues remain that might be subject to resolution through a telephonic interview, the Examiner is invited to telephone the undersigned.

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450, on July 9, 2004.

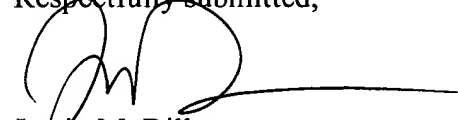


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7-9-04

Date of Signature

Respectfully submitted,


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